To: Egan, Robert[egan.robert@epa.gov]
Cc: KHanson@ldftribe.com[KHanson@ldftribe.com]; Robinson, John H - DNR[John.Robinson@wisconsin.gov]
From: Saari, Christopher A - DNR
Sent: Thur 2/11/2016 9:41:48 PM
Subject: RE: Tower Standard Hydraulic Conductivity Testing

That makes sense; I'll ask REI to include those calculations in the SOW.

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Visit our survey at http://dnr.wi.gov/customersurvey to evaluate how I did.

Chris Saari

Phone: (715) 685-2920

Christopher.Saari@Wi.gov

From: Egan, Robert [mailto:egan.robert@epa.gov]
Sent: Thursday, February 11, 2016 1:34 PM
To: Saari, Christopher A - DNR
Cc: KHanson@ldftribe.com; Robinson, John H - DNR
Subject: RE: Tower Standard Hydraulic Conductivity Testing

Thanks, Chris.

The only comment I have about the proposal is whether they can provide some average velocity calculations as part of the results package, and make some general observations about vertical and horizontal gradients (variation in results, steep/shallow gradients, etc.), since they can get another round of water levels when they are in the field.

Thank you.

Bob Egan

Corrective Action Manager

Underground Storage Tanks Section

RCRA Branch

EPA Region 5

(312) 886-6212

(312) 692-2911 (fax)

From: Saari, Christopher A - DNR [mailto:Christopher.Saari@wisconsin.gov]
Sent: Thursday, February 11, 2016 1:28 PM
To: Egan, Robert <egan.robert@epa.gov>
Cc: KHanson@ldftribe.com; Robinson, John H - DNR <John.Robinson@wisconsin.gov>
Subject: RE: Tower Standard Hydraulic Conductivity Testing

Bob, I'll get you something when I receive it from REI. I think they were looking for feedback from EPA and LDF before finalizing, so I will pass on Kristen's comments re: slug tests.

I terms of previous testing, I found the attached in REI's May 1999 Phase II Site Investigation Report. Using the Hazen Method, they estimated hydraulic conductivity at their MW2 at 16.3 ft/day (5.76×10^{-3} cm/sec).

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Chris Saari

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From: Egan, Robert [mailto:egan.robert@epa.gov]
Sent: Thursday, February 11, 2016 12:56 PM
To: Saari, Christopher A - DNR
Cc: KHanson@ldftribe.com; Robinson, John H - DNR
Subject: RE: Tower Standard Hydraulic Conductivity Testing

Chris,

Please send the work plan (or analogous document) to me and to LDF when it becomes available.

We should have comments for you soon. Do you know whether any conductivity values are in the files from the work performed in the 1990s/2000s? They would be good for comparison to new data.

Thank you.

Bob Egan

Corrective Action Manager

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From: Saari, Christopher A - DNR [mailto:Christopher.Saari@wisconsin.gov]
Sent: Thursday, February 11, 2016 8:55 AM
To: Egan, Robert <egan.robert@epa.gov>
Cc: Robinson, John H - DNR <John.Robinson@wisconsin.gov>; Fassbender, Judy L - DNR <Judy.Fassbender@wisconsin.gov>
Subject: Tower Standard Hydraulic Conductivity Testing

Hi Bob:

I received a cost proposal from REI to perform the hydraulic conductivity measurements that we discussed in Madison last week, and I wanted to run the concept by you to make sure it will meet the needs of EPA and LDF. In a nutshell, REI has proposed:

- Complete hydraulic conductivity calculations at all 17 wells (assume 2 hours per test)

- Data interpretation: download well specific data and conduct hydraulic conductivity calculation. Data to be presented will include copy of data download graph and conductivity calculation

- Datalogger charge: REI will be using InSitu Level Troll 500 loggers. The loggers will be atmospherically vented and will automatically compensate for barometric pressure fluctuations. REI will also use a water level indicator to collect manual measurements to ensure data is calibrated.

REI indicated that typically they run slug tests (introduce stainless slug and allow water levels to stabilize and pull the slug and measure recovery). Per Dave Larsen, some of the wells probably will recover too soon for this method and Larsen want to make sure that all parties are on board with these methods.

I should be available today if you want to discuss this, but I'll be out tomorrow. Otherwise next week would be fine, too. Thanks.

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